REMARKS

The above amendment and these remarks are responsive to the non-final office action of Examiner Pham, mailed 18 Jan 2005.

Claims 1-15 are in the case, none as yet allowed.

Record of Interview

Applicants' attorney expresses appreciation to Examiner Pham for courtesy extended in an telephonic interview held on 24 March 2005.

Prior to that interview, applicants provided to the Examiner a proposed amendment after final and an applicant initiated interview request form identifying for discussion (1) 112 rejection of claims 2 and 3, (2) 103 rejection of claims 1-3, 5-7, 12 and 14 over Meriwether in view of Clark, and (3) 103 rejection of claims 2, 8-11, 13, and 15 over Meriwether in view of Clark and Bolton.

In the course of the interview, discussion items 2 and 3 were addressed, including discussion of claims with

respect to Meriwether, Clark and Bolton. It was determined that, subject to an update search (which would require an RCE), that the claims could be made "probably" allowable by including the following limitations:

a. Operation at the Telnet (application) level;

b. Confirmation record selected from the set of responses consisting of a success response and an error response, both including a response code and diagnostic information including device name; and

c. Device name requested by client.

All claims have been amended to include these limitations, variously stated (the Telnet limitation being described more generically in some of the claims by reference to a connection oriented client/server protocol. See, for example, claim 12).

35 U.S.C. 112

Claims 2 and 3 have been rejected under 35 U.S.C. 112, second paragraph, for the use of the phrases "implicit request" and "explicit request", respectively.

"Implicit" means the Confirmation record is not directly requested via an environment variable. When is an "implicit" request ever seen? When we have a *printer* connection. A printer session *must* have a confirmation record to proceed (the specification refers to the printer confirmation record as the "default" confirmation record). Since applicants' invention is directed to *display* confirmation records (which the patent refers to as "custom" confirmation records, because we can optionally add extra data onto the end of the default record), there is a bit of a distinction, which applicants refer to as "implicit" and "explicit" requests for confirmation records. This is described on page 12, lines 9-12.

In any case, for displays, the record must be "explicitly" requested, since while it's required for printers it is not required for displays.

However, to avoid misunderstanding on terms "explicitly" and "implicitly", applicants have amended claims 2 and 3 to more closely track the disclosure in applicants' specification, which states:

"In step 58, server 42 instructs client 40 to send

several parameters, and in step 60 client 40 responds. In accordance with the preferred embodiment of the invention, in the response of step 60, client 40 requests with the code "USERVAR 'IBMSENDCONFREC' VALUE 'YES'" that server 42 send a confirmation record 100. Alternatively, such a request may be implied from some other parameter in connection with the new environment negotiations. Thus, for example, client 40 may have to specifically request a confirmation record 100 when requesting connection of a virtual display device, but such would be implied when requesting connection of a virtual printer device." [Specification, page 12. Emphasis added.]

With this understanding, applicants request that the rejection of claims 2 and 3 under 35 U.S.C. 112 be reconsidered and withdrawn.

35 U.S.C. 103

Claims 1-3, 5-7, 12, and 14 have been rejected under 35 U.S.C. 103(a) over U.S. Patent 5,931,913 (Meriwether) in view of U.S. Patent 6,304,905 (Clark).

With respect to claims 1, 12, and 14, the Examiner

discusses the Meriwether and Clark references as follows:

Meriwether teaches operating a client to establish a network connection with a server, comprising: negotiating environment parameters for establishing a connection-oriented connection with said server (col. 7 lines 40-44,"a communication channel is established ...to established a session"); said parameters including a request for said server to provide a confirmation/status record (col. 3 lines 46-49, "Establishment of the communications ... the communications channel"); and responsive to said request, receiving said confirmation/status record (col.7 lines 47-52, "The request may be communicated ...to the client 214"). Meriwether does not teach the confirmation record containing descriptive information about a connection which is held for the duration of a file transfer or dialog. However, Clark teaches connection between clients and a server via a telnet session in which the client issues a request to a sever and the server must response back with a mandatory descriptive information about the connection (col. 7 lines 1-11, "a first network node issues ... to the client promptly or immediately") for the purpose of

inquiring whether the server is on-line and accepting the negotiation with the client... . (OCR version of Office Action.)

Applicants have amended claims 1, 12, and 14.

Nowhere does Meriwether or Clark teach a confirmation/status record as applicants' have defined it (with a device name, a status code, optional exit programming, etc., using modern language -- however the claims are amended using equivalent language from the specification).

Meriwether talks about a confirmation, but there is no description of it anywhere. In Meriwether's case, a confirmation record is probably "1" for success and a "0" for failure.

Clark nowhere shows a confirmation record with a device name, status, exit program information (response code), etc. included. At best, Clark uses the current set of Telnet protocol options, which does not have applicants' Confirmation Record defined.

Furthermore, Clark is specifically looking to see a negative response from the server to identify the existence of the server, and not to receive any information (beyond the fact of any response at all) in the response upon which it can act. In fact, Clarks' patent design allows him to use any Telnet protocol option he desires, whether it actually exists or not (preferably not, because using a real one will confuse the server), send "that" to the server and hopefully get a (negative) response from the server (if one exists). There is nothing descriptive in the server response - it amounts to an expected "no, I won't do this" type negative response. Thus, Clark is simply looking for any response at all, and making decisions based upon the existence of one.

Going back to Meriwether, the confirmation that Meriwether is seeing is most likely of the "success" or "failure" return code variety. If the "communications channel connection" to the remote host is successful, it means he can begin talking to that host using the Telnet protocol. Thus the "communications channel" (which is likely "TCP/IP sockets" in this case, see col. 3 lines 55-60) allows the "computer readable program code" (which is "Telnet" in this case, see col. 3, lines 60-65) to

communicate over it. The "communications channel" in this case is clearly not the Telnet protocol as defined in the art, because the Telnet protocol is "communicating ... via the communications channel" (Examiner's citation).

Applicants "confirmation record" (also referred to in the specification as a "response record") is not "confirmation" in the sense that Meriwether is using it. Applicant's use of the term is as the name of a piece of information the server returns to the client once the Telnet protocol negotiations are finished. This "confirmation record" is a success or failure response record containing descriptive information about the Telnet session itself.

On the other hand, Meriwether uses the term "confirmation" in the sense that the session connection was established - that the client was able to connect to the server so that it can start the Telnet protocol negotiations. Thus, Meriwether's description is not referring to "Telnet protocol communications" (in the context of "confirmation") but rather to "TCP/IP protocol communications".

Applicant's claims 1, 12, and 14 are here referring to

"environment parameters" which are Telnet or the like

protocol parameters. Meriwether is describing a general

communications connection between a client and server,

normally something supplied via sockets in the layer below

Telnet, which creates a connection over which the Telnet

protocol information can then be sent. This can be seen in

Col. 7, lines 50-55 where Meriwether states that after the

"...confirmation of establishment of the channel..." that a

"...Telnet dialog can then commence...". In other words, no

Telnet environment parameter negotiation has yet begun when

Meriwether's "confirmation" is issued, which is only an

indication that a communications channel has been

established (but no Telnet dialog has yet occurred.)

Here, applicants are using the word Telnet in the sense

set forth in their specification at page 19, lines 3-17 to

include applications where according to protocols that make

use of a confirmation record confirming attributes

associated with an actual persistent connection. An example

of such a protocol is the file transfer protocol (FTP), in

which a connection is initiated and held for the duration of

a <u>file transfer</u>. Telnet initiates and holds the connection

for the duration of the <u>dialogue</u> between the attaching

client emulator that initiates the connection to a targeted

host server and its application.

Claims 2, 3 and 5-7 depend from claim 1, and are similarly distinguished.

Further with respect to claims 2 and 3, applicants have amended the claims to conform to the specification. Applicants note that Meriwether does not actually define 'explicit' or 'implicit' either. One of skill in the art would interpret the 'explicit' and 'implicit' that Meriwether is talking about as referring to Telnet protocols, which do not define a confirmation record (as that term is defined by applications in the amended base claim 1.)

Regarding claim 5, the Examiner states:

"Clark teaches the confirmation record including a response code indicative of the cause of a failed connection (col. 7 lines 5-7, "The responsive message may be ... a confirmation, or the like.").

Claim 5 depends from base claim 1, and is distinguished as previously described.

Further, in Clark, the response can be anything because he doesn't care _what_ it is, only _if_ it is. There is no intelligence exploiting the existing protocol response. For Clark, he could receive any protocol response and authoritatively declare "the server is online", but what good is that information to someone who's unable to use the server? Knowing the server is online doesn't help us know why someone cannot use that server (that knowing that a server is "offline" does not constitute intelligence here). Thus, Clark has not taught an intelligent "confirmation" as applicants have defined confirmation record in the amended base claim 1. Clark is simply using existing protocols (he has defined nothing new) and trying to infer some status and perform some recovery based on these protocol responses.

Regarding claim 6, the Examiner states:

"Meriwether responsive to said response code, retrying said negotiating step (col 8 lines 55-63, "Those skill in the art.. establishment messages illustrated").

Applicants traverse. Applicants' retry is based upon the status found in the Confirmation record, not based upon existing Telnet protocols. Thus, applicants' attempt to

"retry" the negotiation of (for example) the user password because the password is invalid is not possible under Meriwether. Meriwether has no provisions for anything outside standard Telnet protocols, and his retry blocks simply show the existing Telnet protocols.

Regarding claim 7, the Examiner states:

Meriwether teaches client being a Telnet client, and said negotiating step including negotiating new environment and terminal type parameters (col. 4 lines 3-31, "a session may be ... the second number of transfers").

Applicants have amended claim 7 to clarify that the negotiating step includes negotiating new environment and confirmation record parameters..." thus more clearly distinguishing the claim from a normal Telnet client (and Meriwether).

Claims 4, 8-11, 13 and 15 have been rejected under 35 U.S.C. 103(a) over Meriwether in view of Clark and further in view of U.S. Patent 6,128,662 (Bolton).

Regarding claim 4 (which depends from base claim 1), the Examiner states:

Meriwether and Clark teach operating a client to establish a network connection with a server providing a confirmation record but does not teach a device name assigned by the server to the client connection. However, Bolton teaches a virtual name is generated by the server to the client during negotiation (col. 7 lines 50-56, "we generate the model string ... the device type as the key") for the purpose of eliminating the need of the server to maintain a table of different devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the virtual device name of Bolton with the systems of Meriwether and Clark because it would provide for the purpose of eliminating the need of a server to maintain a table of different devices.

As discussed above with respect to base claim 1, Meriwether and Clark do not teach Confirmation Records as now defined in currently amended claim 1.

In addition, applicants' invention allows the device name to be requested specifically by the client, rather than "assigned" by the server. Applicants' Figure 3 block 60 shows requesting a device by name (called "MYDEVICE") and is a separate step from the terminal type negotiation, which is step 64, which is further described at page 15, lines 1-12 (below Table 5), of their specification..

Thus, applicants' invention allows any terminal type that is negotiated to be assigned a device name of the clients choosing (which is not possible under Bolton - the device name is built from the terminal type negotiated). In Bolton's case, the device assigned will be something like "317902" per Bolton Figure 6 block 34. As the Examiner states, the device name is built from the terminal type negotiations.

Regarding claims 8, 9, 13, and 15, the Examiner states:

Meriwether teaches operating a server in a network, comprising the steps of receiving a connection request from a client (coL 3 lines 46-49, "Establishment of the communications... the communications channel"); inviting said client to negotiate environment

parameters (col. 7 lines 54-62, "a Telnet logon dialog ... binary transmission option negotiation"); responsive to client acceptance, negotiating said parameters (col. 7 line 65 to col. 8 line 4, "terminal type information received ... and the server 23 2"); responsive to receiving a request for a confirmation record, providing to said client a confirmation record (col. 7 lines 47-5 2, "The request may be communicated ... to the client 214")...

Applicants traverse. Meriwether does not teach applicants' Confirmation Record, which contains descriptive information about a connection which is held for the duration of a file transfer or dialog including, for a successful connection, said virtual device name and, for an unsuccessful connection, a return code indicative of the cause of failure of said connection.

The Examiner continues:

Meriwether does not teach assigning a virtual device name to said client; and the confirmation record containing descriptive information about a connection which is held for the duration of a file transfer or

dialog including, for a successful connection, said virtual device name and, for an unsuccessful connection, a return code indicative of the cause of failure of said connection. However, Clark teaches connection between clients and a server via a telnet session in which the client issues a request to a sever and the server must response back with a mandatory descriptive information about the connection (coL 7 lines 1-11, "a first network node issues... to the client promptly or immediately") for the purpose of inquiring whether the server is on-line and accepting the negotiation with the client.

Applicants traverse. In Clark, the response can be anything because he doesn't care what it is, only if it is. There is no intelligence exploiting the existing protocol response. For Clark, he could receive any protocol response and authoritatively declare "the server is online". However, merely knowing the server is online doesn't help a client know why it cannot use that server (that knowing that a server is "offline" does not constitute intelligence here). Thus, Clark has not taught an intelligent "confirmation" as applicants have defined confirmation record in claim 8 as including descriptive information about

a connection which is held for the duration of a file transfer or dialog including, for a successful connection, the virtual device name and, for an unsuccessful connection, a return code indicative of the cause of failure of the connection. Clark is simply using existing protocols and trying to infer some status and perform some recovery based on these protocol responses.

The Examiner continues:

"Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the request/response negotiation of Clark with Meriwether because it would provide for the purpose of inquiring whether the server is on-line and accepting the negotiation with the client..."

Applicants traverse. Merely knowing that the server is on-line and accepting negotiation with the client is insufficient. Applicants confirmation record (aka response record) includes response codes with descriptive information about a connection which is held for the duration of a file transfer or dialog including, for a successful connection, the virtual device name and, for an unsuccessful connection,

a return code indicative of the cause of failure of the connection.

The Examiner continues:

"Furthermore, Bolton teaches a virtual name is generated by the server ..."

Applicants have amended the claims to clarify that the virtual name assigned is one requested by the client, and thus do what Bolton cannot.

The Examiner continues:

"to the client during negotiation (col. 7 lines 50-56, "we generate the model string ... the device type as the key") for the purpose of eliminating the need of the server to maintain a table of different devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the virtual device name of Bolton with the system of Meriwether because it would provide for the purpose of eliminating the need of a server to maintain a table of different devices.

In applicants invention there is no need to eliminate a table of devices at the server. Applicants' motivation is to provide for intelligent correction of negotiations based upon actual errors received from the server.

Regarding claims 10 and 11, these depend from base claim 9. Unlike Meriwether, applicants' Telnet client supports a custom confirmation record as discussed previously with respect to claim 9. Further, implicit and explicit requests for confirmation records occur for printers (implicit) and displays (explicit). Meriwether is simply describing Telnet protocols, which allow for the server to indicate the session is complete and ready in an implicit (no more negotiations are seen) or explicit (actual transaction data now flows) manner.

SUMMARY AND CONCLUSION

Applicants urge that the above amendments be entered and the case passed to issue with claims 1-15.

The Application is believed to be in condition for allowance and such action by the Examiner is urged. Should

differences remain, however, which do not place one/more of the remaining claims in condition for allowance, the Examiner is requested to phone the undersigned at the number provided below for the purpose of providing constructive assistance and suggestions in accordance with M.P.E.P. Sections 707.02(j) and 707.03 in order that allowable claims can be presented, thereby placing the Application in condition for allowance without further proceedings being necessary.

Sincerely,

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